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Are we hitting the bull's eye?

[Buffalo, N.Y.]

[1912]

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Are We Hitting The Bull's Eye?

A Study of Facts, Figures and Opinions affecting the Mortality from, and the Campaign against Tuberculosis, in Cities of 100,000 and over.

The Result of a Questionaire sent by the Committee on Municipal Development of the BUFFALO ASSOCIATION FOR THE RELIEF AND CONTROL OF TUBERCULOSIS, to Health Officers, Tuberculosis Secretaries, and prominent Workers in the Tuberculosis Cause.

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EDITED BY
JOHN R. SHILLADY, Executive Secretary
February, 1912.

Foreword.

Buffalo, in common with many other cities of the country, has not had adequate hospital provision for the care of advanced cases of tuberculosis. As a consequence, the poor, afflicted with this disease in the advanced stages, have, in many cases, remained in their homes with the result that new cases succeed the old ones with a frequency that prevents the stamping out of the disease.

Our hospital accommodations for the advanced has been limited to 80 *beds for men and* 15 *for women, excepting during the five summer months when our "Open Air Camp" has cared for about seventy ambulant cases in different stages. For incipients the new J. N. Adam Memorial Hospital of* 125 *beds and the State Hospital at Ray Brook put Buffalo in the front rank of American cities so far as care of the early case is concerned.*

In May, 1912, *the City Hospital Commission was appointed for the erection and management of a public general hospital on the so-called "West Farm" site, the first buildings of which are to be for advanced cases of tuberculosis. The architects for the commission are at present (May,* 1913) *approaching completion of plans for the hospital which, however, cannot be open for patients for two or three years to come.*

In October, 1912, *just before the Association's Open Air Camp was to close, our Committee on Municipal Development, in a communication to the Mayor, Health Commissioner and Board of Health, the Common Council and the Board of Supervisors, urged the health authorities to use the extraordinary power under the charter to take possession at once of the Municipal Hospital on East Ferry Street and put it in shape to be used immediately for the care of advanced cases of tuberculosis. The Committee's idea was, to quote, "by immediate we mean without delay or any advertising for bids * * *" suggesting that in two or three weeks temporary improvements could be made." This proposition was rejected by the city authorities although the Common Council voted to advertise for bids and put the hospital in shape. Objection was made that such action as we proposed (necessitating declaring the city to be in the presence of "great and imminent peril to the public health by reason of impending pestilence," as required by the charter) would give Buffalo a "black eye." The committee contended, on the contrary, that to have handled this matter with energy and despatch would have given Buffalo a high place among the cities of the country.*

The consideration of this, and other questions affecting the work of the Association, suggested the advisability of making a thorough study of matters pertaining to the treatment of tuberculosis in the cities of the country. Accordingly a questionaire was sent out addressed to Health Officers, Tuberculosis Secretaries and specialists prominent in the treatment of tuberculosis in every city of 100,000 *or more. This questionaire covered a number of statistical inquiries as well as matters of procedure and public policy and has excited a very lively interest. Many letters commending the Association for stimulating the thought of the country by the inquiries made, have been received from prominent workers.*

We feel that in publishing the results of the questionaire we are contributing something of value to the movement throughout the country, as well as something of stimulative and educative value to Buffalo.

Questionaire.

1 Your population, year..... Total deaths per M.....

2 Deaths Pulmonary Tuberculosis, 1910..... 1911.....

3 All other forms Tuberculosis, 1910..... 1911.....

4 Increase in number of deaths, all causes, since 1900.....%
Decrease in number of deaths, all causes, since 1900.....%

5 Increase in number of deaths Tuberculosis since 1900.....%
Decrease in number of deaths Tuberculosis since 1900.....%

6 Number of living cases Tuberculosis known to your Department.....

7 Number of visiting Tuberculosis nurses employed by City.....
salary.....

8 Number of visiting Tuberculosis nurses, Private agencies.....
salary .....

9 How much, per capita, does Health Department spend, exclusive of hospital maintenance, all purposes.....
Tuberculosis work.....

10 Number of free beds available for Tuberculosis cases—Incipient.....; Advanced.....

11 To what do you ascribe decrease, or lack of decrease, in Tuberculosis death rate.....
.....
.....
.....

12 Do you regard increased hospital beds for better care essential to a decreased death rate, and particularly, segregation of advanced cases .....

13 How many beds do you consider should be provided in your city for the care of advanced cases in order to insure proper care and a decreased death rate.....

14 Is Tuberculosis not plainly a house and indoor disease, and should not every effort be made to get patients out of their homes and under hospital control.....

15 What measures do you advise to hasten a decrease in death rate from Tuberculosis.....
.....
.....
.....

16 Is not the work of Health Inspectors and Tuberculosis Nurses limited in effect without hospital segregation.....

17 Do you accept the opinion of Newsholme and Philip that the death rate falls in almost exact proportion to the number of beds available for their care.....

18 Have you investigated the percentage of infection caused by the patients remaining in their homes.....
What are your conclusions on this point.....
.....
.....

19 Is Tuberculosis not the most important disease for a Health Department to control when regarded from the viewpoint of morbidity, mortality, and the economic loss to your city
.....

20 If you have not sufficient accommodations to care for a considerable percentage of your cases of Tuberculosis, would you favor declaring the presence of so many sources of infection in your city, an emergency justifying you, within the law, in quickly supplying hospital accommodations without the usual "red tape" and slow procedure.....

21 Is it not plain that more efficient measures of a broader nature than now in practice generally, must be employed to obtain results which our present knowledge would lead us to believe probable .....

Names of Persons Replying to Questionaire.

Replies to the questionaire have been received from the following active health officers, executives of anti-tuberculosis associations, superintendents of sanatoria, directors and physicians in charge of tuberculosis clinics and prominent specialists and experts in the treatment of tuberculosis.

The official position, when known, of those replying, appears below, but is omitted in the separate replies to avoid repetition.

Ernest J. Lederle, Ph. D., Commissioner of Health, New York City.

C. B. Young, M. D., Commissioner of Health, Chicago, Ill.

Joseph S. Neff, M. D., Director of Public Health and Charities, Philadelphia, Pa.

Thomas B. Shea, M. D., Chief Medical Inspector, Health Department, Boston, Mass.

C. E. Ford, M. D., Secretary Board of Health, Cleveland, Ohio.

R. H. Bishop, Jr., M. D., Chief Tuberculosis Division, Board of Health, Cleveland, Ohio.

C. Hampson Jones, M. D., Assistant Commissioner of Health, Baltimode, Md.

J. D. Crawford, M. D., Chief Tuberculosis Division, Department of Health, Pittsburgh, Pa.

Guy L. Kiefer, M. D., Health Officer, Detroit, Mich.
R. G. Brodrick, M. D., Health Officer, San Francisco, Cal.
F. A. Kraft, M. D., Commissioner of Health, Milwaukee, Wis.
Edith Shatto, Chief Division of Tuberculosis, Milwaukee, Wis.
J. H. Landis, M. D., Health Officer, Cincinnati, Ohio.
D. D. Chandler, M. D., Health Officer, Newark, N. J.
W. C. Woodward, M. D., Health Officer, Washington, D. C.
L. M. Powers, M. D., Health Commissioner, Los Angeles, Cal.
C. E. Dutton, M. D., Commissioner of Health, Minneapolis, Minn.
Walter S. Wheeler, M. D., Health Commissioner, Kansas City, Mo.
H. G. Morgan, M. D., Secretary Board of Health, Indianapolis, Ind.
Charles V. Chapin, M. D., Health Officer, Providence, R. I.
George M. Goler, M. D., Health Officer, Rochester, N. Y.
Howard Lankester, M. D., Health Commissioner, St. Paul, Minn.
J. M. Perkins, M. D., Health Commissioner, Denver, Colo.
C. H. Wheeler, M. D., Health Officer, Portland, Ore.
J. W. Keegan, Clerk Board of Health, Columbus, Ohio.
B. Becker, M. D., Health Officer, Toledo, Ohio.
Frank W. Wright, M. D., Health Officer, New Haven, Conn.
M. Goltman, M. D., Superintendent of Health, Memphis, Tenn.
Clerk, Board of Health, Dayton, Ohio.
E. C. Levy, M. D., Health Commissioner, Richmond, Va.
J. Alex. Browne, M. D., Health Officer, Paterson, N. J.
C. C. Slemons, M. D., Health Officer, Grand Rapids, Mich.
W. E. Hibbett, M. D., City Health Officer, Nashville, Tenn.
F. A. Bates, M. D., Agent, Board of Health, Lowell, Mass.
Bradford H. Pierce, M. D., Medical Inspector to Board of Health, Cambridge, Mass.
John B. Anderson, M. D., Health Officer, Spokane, Wash.
Joseph D. Craig, M. D., Health Officer, Albany, N. Y.
Livingston Farrand, M. D., Executive Secretary National Association for the Study and Prevention of Tuberculosis.
Homer Folks, President National Association for the Study and Prevention of Tuberculosis; Secretary New York State Charities Aid Association.
John A. Kingsbury, General Agent, New York Association for Improving the Condition of the Poor.
James Alexander Miller, M. D. Chief Tuberculosis Clinic, Bellevue Hospital, New York City.
James Jenkins, Jr., Executive Secretary, Brooklyn Committee for the Prevention of Tuberculosis, Brooklyn, N. Y.
Frank E. Wing, General Superintendent, Municipal Tuberculosis Sanitarium, Chicago, Ill.
James Minnick, Superintendent Chicago Tuberculosis Institute, Chicago, Ill.
Theodore B. Sachs, M. D., Trustee, Municipal Tuberculosis Sanitarium, Chicago, Ill.
Karl de Schweinitz, Executive Secretary, Pennsylvania Society for the Prevention of Tuberculosis, Philadelphia, Pa.

Lawrence F. Flick, M. D., Philadelphia, Pa.
F. A. Craig, M. D., Visiting Physician to Henry Phipps Institute, White Haven Sanitarium; Physician, Tuberculosis Class, Presbyterian Hospital, Philadelphia, Pa.
A. W. Jones, Jr., Secretary, Society for the Relief and Prevention of Tuberculosis, St. Louis, Mo.
Richard C. Cabot, M. D., Chief, West Medical Service, Massachusetts General Hospital, Boston, Mass.
Seymour H. Stone, Secretary, Boston Association for the Relief and Control of Tuberculosis, Boston, Mass.
Henry I. Bowditch, M. D., Physician to Out-Patients, Boston City Consumptives' Hospital, Boston, Mass.
Vincent Y. Bowditch, M. D., Medical Director, Sharon Sanatorium, Sharon, Mass.; formerly Attending Physician to State Sanatorium, Rutland, Mass.; Boston, Mass.
Edwin A. Locke, M. D., Chief of Staff, Boston Consumptives' Hospital, Boston, Mass.
Edward O. Otis, M. D., Professor of Pulmonary Diseases, Tufts College Medical School; Physician-in-Chief of the Tuberculosis Clinic of the Boston Dispensary; Late Visiting and Consulting Physician of the Massachusetts State Sanatorium, Rutland, Mass.; Boston, Mass.
John B. Hawes, 2d, M. D., Secretary State Board of Trustees, Massachusetts State Hospital for Consumptives, Boston, Mass.
Cleaveland Floyd, M. D., Director Out-Patient Department, Boston Consumptive Hospital, Boston, Mass.
John S. Fulton, M. D., Baltimore, Md.
William Charles White, M. D., Medical Director, Tuberculosis League, Pittsburgh, Pa.
George H. Evans, M. D., Chairman, Committee on Dispensaries, San Francisco Tuberculosis Clinic, San Francisco, Cal.
A. H. Giannini, Executive Secretary, San Francisco Association for the Study and Prevention of Tuberculosis, San Francisco, Cal.
Philip King Brown, M. D., Medical Director, Arequipa Sanatorium for Early Tuberculosis in Wage Earning Women; Attending Physician, San Francisco Tuberculosis Hospital, San Francisco, Cal.
S. P. Withrow, Superintendent Anti-Tuberculosis League of Cincinnati, Cincinnati, Ohio.
Ernest D. Easton, Executive Secretary, Newark Anti-Tuberculosis Association, Newark, N. J.
Frederick L. Hoffman, Statistician, Prudential Insurance Company, Newark, N. J.
Gen. George M. Sternberg, President, Association for the Prevention of Tuberculosis, Washington, D. C.
F. A. Sampson, Secretary, Louisville Anti-Tuberculosis Association, Louisville, Ky.
Montgomery E. Leary, M. D., Superintendent of Iola Sanatorium, Rochester, N. Y.

C. Easton, Executive Secretary, Minnesota Association for the Relief and Prevention of Tuberculosis, St. Paul, Minn.

Edward A. Pierce, M. D., Secretary Oregon State Association for the Study and Prevention of Tuberculosis, Portland, Ore.

Robert G. Paterson, Ph. D., Executive Secretary, Ohio Society for the Prevention of Tuberculosis, Columbus, Ohio.

Rosa Lowe, Secretary, Anti-Tuberculosis and Visiting Nurse Association, Atlanta, Ga.

W. Irving Clark, M. D., Secretary, Worcester Tuberculosis Relief Association, Worcester, Mass.

William A. Marvel, Secretary, Fall River Anti-Tuberculosis Association, Fall River, Mass.

Ethel M. McCormick, Executive Secretary, Grand Rapids Anti-Tuberculosis Association, Grand Rapids, Mich.

John D. Strain, Executive Secretary, Tennessee Anti-Tuberculosis Association, Nashville, Tenn.

Robert J. Newton, Secretary, Texas Anti-Tuberculosis Association, Austin, Texas.

M. P. Ravenel, M. D., Professor Bacteriology, Director Hygiene Laboratory, University of Wisconsin, Madison, Wis.

William J. Douglas, M. D., Superintendent, Tuberculosis Department, Essex County Hospital, Belleville, N. J.

Lawrason Brown, M. D., Attending Physician, Adirondack Cottage Sanitarium, Saranac Lake, N. Y.

Henry S. Goodall, M. D., Superintendent, Stony Wold Sanatorium, Lake Kushaqua, N. Y.

A. H. Garvin, M. D., Superintendent, New York State Hospital for Incipient Pulmonary Tuberculosis, Ray Brook, N. Y.

Wallace Hatch, Secretary, Rhode Island Anti-Tuberculosis Association, Providence, R. I.

TABLE I.

Cities in Order of Population	Population 1911	Total Deaths Per M 1912	Tbc. Death Rate Per 10000 Allforms 1911	Increase (+) or decrease (—) (See Note) in Pulmonary Tbc. Death Rate (1900-1910) * as indicated by PER CENT. DIFFERENCE between Pul. Tbc. Death Rate. 1900 (100 Per Cent.)					Percentage—Pulmonary Tbc. Deaths to all Deaths. 1900-1910 *				1912 *
				And Maximum Pul. Tbc. D.R	In Year	And Minimum Pul. Tbc. D.R.	In Year	And Rate in 1912 *	Maximum	In Year	Minimum	In Year	In 1912
New York	4,983,385	14.11	20.5	5.5—	1901	23.6—	1910	31.4—	12.1	1908	11.0	1904	11.7
Brooklyn	1,710,861	13.5	16.8	6.1—	1901	31.9—	1909	37.6—	10.9	1900 / 1903 / 1904	9.7	1907 / 1909 / 1910	10.15
Chicago	2,244,835	14.82	16.6	3.4+	1907	10.8—	1901	15.1—	11.8	1905	10.1	1902	9.5
Philadelphia	1,580,250	15.08	21.6	5.5+	1904	13.4—	1909	14.2—[2]	12.3	1904	10.4	1900	11.3[2]
St. Louis	700,000	14.58	14.1	23.6+	1904	11.1—	1910	32.1—	13.1	1905	10.3	1903	8.7
Boston	688,912	16.21	17.8	5.3—	1901	36.5—	1909	39.6—	12.2	1900	9.3	1908	9.3
Cleveland	580,000	13.58	14.3	8.0+	1904	16.4—	1901	11.6—	9.3	1904	7.1	1901	8.3
Baltimore	564,545	18.33	24.6	8.5+	1904	5.7—	1902	11.4—	12.5	1904	11.0	1900	11.3
Pittsburgh	542,481	15.9	12.3	10.1+	1904	25.8—	1910	31.2—	7.95	1904	5.8	1910	6.08
Detroit	493,040	15.09	10.5	4.9+	1904	23.9—	1909	1.5+	7.9	1904	6.1	1909	7.6
Buffalo	435,315	14.66	13.6	19.8+	1904	3.8+	1902	5.0+	8.5	1904	7.4	1907	8.1
San Francisco	446,000	14.24	18.4	1.9+	1901	41.2—	1909	49.8—	14.2	1901	9.6	1906	10.02
Milwaukee	384,282	14.57	10.8	2.1+	1904	27.4—	1909	38.7—	10.4	1904	7.3	1909	5.8
Cincinnati	373,000	16.93	26.4	31.6+	1906	1.6+	1902	11.1+	15.0	1910	11.1	1900	13.2
Newark	352,000	14.65	20.1	0.5+	1904	22.3—	1909	32.8—[2]	13.6	1905	11.6	1909	10.9[2]
New Orleans	373,000	18.9	22.0	3.3—	1904	36.1—	1909	26.8—	15.1	1904	10.8	1909	13.3
Washington	349,568	17.73	23.3	0.7+	1901	24.5—	1908	30.4—	13.8	1901	11.6	1908	11.5
Los Angeles	329,198	15.05	25.9	0.4—	1903	37.7—	1909	37.5—	19.8	1901	16.4	1910 / 1906	15.07
Minneapolis	311,182	10.57	15.2	4.1—	1909	27.4—	1905	5.8—	11.5	1909	9.7	1907	11.4
Kansas City	270,000	14.35	14.1	8.4+	1904	33.1—	1908	39.5—	12.1	1900	9.3	1908	8.3
Indianapolis	250,000	15.08	17.3	4.7—	1904	25.2—	1902	37.6—	13.7	1908	10.9	1910	9.15
Providence	231,000	15.76	14.8	8.0—	1901	42.0—	1909	54.8—	11.6	1902	8.5	1909	6.8
Louisville	233,000	15.39	21.6	19.0+	1904	10.3—	1902	13.5—	13.0	1910	10.2	1902	11.6
Rochester	227,000	14.43	12.8	3.7+	1901	23.1—	1902	27.5—	10.3	1901	8.1	1907	7.2
St. Paul	235,000	9.77	12.3	0.7+	1907	23.3—	1908		12.1	1900	8.8	1900	
Denver	215,000	15.17	30.5	5.9+	1904	19.6—	1909	29.8—	24.0	1905	18.1	1910	17.3
Portland	232,000	8.69	9.9	1.6+	1901	29.8—	1906		11.2	1900	7.5	1910	
Columbus	188,357	14.36	17.8	0.1+	1903	25.9—	1909	30.9—	14.4	1901	11.1	1909	10.08
Toledo	172,899	15.77	18.8	38.4+	1909	3.9—	1902	15.1+	12.1	1909	8.1	1900	9.3
Oakland	165,000	13.63	11.1	11.8+	1901	43.9—	1904	53.2—[2]	14.3	1901	9.0	1904	7.008[2]
New Haven	137,000	16.39	14.4	2.3+	1901	22.8—	1908	47.95—	11.3	1902	8.4	1905	5.9
Memphis	160,000	12.53	22.0	6.9+	1902	21.6—	1903	17.5—[2]	13.8	1902	9.6	1907	
Richmond	129,291	20.78	24.9	13.5—	1906	36.9—	1908	32.95—	12.4	1906	8.9	1908	9.9
Paterson	129,584	14.27	14.0	1.1+	1904	34.4—	1908	39.1—[2]	11.7	1906 / 1903	8.7	1908	8.8[2]
Dayton	120,000	15.45	15.4	19.4+	1906	5.5—	1910		12.9	1906	10.6	1907	
Grand Rapids	114,000	14.37	8.9	29.3+	1904	20.1—	1905	0.8—	8.5	1903	5.3	1905	6.47
Nashville	113,122	18.73	23.7	0.1+	1904	44.2—	1909	45.8—	15.1	1905	10.7	1909	10.03
Lowell	106,294[1]	17.79	14.9	13.7—	1901	41.7—	1910	44.4—[2]	9.9	1900	5.7	1910	5.9[2]
Cambridge	104,839[1]	15.97	17.5	9.3+	1909	31.7—	1906		18.4	1909	11.5	1906	
Spokane	112,000	8.48	10.0	10.6+	1903	26.7—	1909	57.1—	10.9	1901	6.8	1910	6.0
Albany	100,253	20.46	26.5	3.2+	1910	28.1—	1909	3.98+	12.5	1901	9.4	1907	11.8

[1]Figures given for 1910-1911.
[2]1912 figures lacking. Comparison with those of 1911.

*Statistics 1900 to 1910 based on U. S. Bureau of the Census' Mortality Statistics. Statistics 1911 and 1912 from figures of the health officers of the various cities.

NOTE:—The following examples serve to explain the figures in these columns.

In all cities the pulmonary tuberculosis death rate in 1900 was taken as 100%.

In Grand Rapids this 1900 rate was 93.7 per 10,000. In the succeeding years the maximum rate occurred in 1904 and was 121.2 per 10,000 or 129.3 per cent. of the 1900 rate. This, therefore, is the greatest increase from 1900 to 1910 and is represented as such in the statistics by the percentage of difference between the 1900 and 1904 rates, viz.: 29.3%. The added plus sign indicates that this is an increase. The minimum rate from 1900 to 1910 occurred in 1905 and was 74.9 per 10,000 or 79.9% of the 1900 rate. This greatest decrease is represented in the statistics by the difference between the 100% of 1900 and the 79.9% of 1905 or 20.1%, and as this represents a decrease, the minus sign is added.

In cases such as Buffalo, where no decrease has occurred, plus signs are used, and the per cent. differences were taken between the 1900 rate and the maximum and minimum rates since, thus showing the greatest and least increases.

Where no increase has occurred, as in Boston, minus signs are used, and the per cent. differences taken between the 1900 rate and the maximum and minimum rate since show the least and greatest decreases since 1900.

TABLE 2.

Cities in Order of Population	Number living cases Tbc. known to Health Authorities	Per Capita Expenditure Health Department exclusive of Hospitals		Municipal Tuberculosis Nurses		Private Tuberculosis Nurses		Free Beds for		Number Free Beds Needed for Adv.	*Number School Health Inspectors Employed	*Number School Nurses Employed
		All Purposes	Tbc Work	Number	Monthly Salary	Number	Monthly Salary	Incip.	Adv.			
New York	32,418	A	A	154	$75	?	?	500[1]	2000	5000	79	170
Brooklyn	5,336	A	A	51	$75	5	$75	0[1]	300	½ as many as cases		
Chicago	20,000[2]	.27	A	35	$90 on scale	55	$75 av.	150	740		105	70
Philadelphia	4,145	.15	B	9[3]	$75	5	$75-$80 av.	78[1]	404[4]	1500-2000	77	24
St. Louis		A		0		6	$65-$90	28	168		7	6
Boston	5,200[5]			25	$75	5	$50	830[6]	664	500 more	83	35
Cleveland	4,685	.322	.041	14	$60-$85	2	$60-$85	100	165	500	15	20
Baltimore	3,200	.27	.04	17	$75	0		346	474	500	5	5
Pittsburgh	5,200	.79	.019	4	$75	2	$45[7]		90†,60‡[21]	500+		
Detroit	600[8]	.23[9]	.02[9]	5	$75	3	$70	56	36	50	39	8
Buffalo	1,100[2]	.337	.021	6	$60	0		125[1]	95	400	25	3
San Francisco	10,000[9]	.3028	C	1[9]	$60	2	$75		160[10]	950[11]	3	12
Milwaukee	1,188			3	$75	1	$60	110[12]	50[13]	250 more	13	5
Cincinnati	2,880	.227	.0069	2	$70	3	$60-$70		320	500-1000	12	8
Newark	1,783	.44[14]	.13[14]	2	$65	6	$75	60	177	30-40[15]	38	8
New Orleans											3	0
Washington	1,117	.267	A	0		2	$60	60	60	100 more	12	0
Los Angeles	1,331	.245	.0257	1	$75	0		4	150	300		
Minneapolis	2,500[8]	.42[16]	.007	2	$55-$70[17]	2	$60[17]	20	75	150	8	13
Kansas City	112	.20	.017	1	$75			25	75	70-100	15	3
Indianapolis		.206	.015	1	$80				24	100	28	0
Providence				0		4	$75				8	4
Louisville		.093				6	$65	50	125	2000	4	0
Rochester	300[8]	.226	D	0		2	$70	24[1]	76	300-400	12	3
St. Paul		.33[18]	0	0		6	$75				1	3
Denver		.47		0				40		1000	2	0
Portland	179[19]			0		2	$75		70			
Columbus		.263	0	0								2
Toledo		.145	0	0		4	$65-$70					
Oakland	158	.28	E	1	$75	0						
New Haven		.20	F	0		4	$65					
Memphis	77			3	$75	0		12	16	200		
Richmond		.335	.025+	2	$65						9	5
Paterson	200					1	$75	200[20]	32[20]			
Dayton		.16	F	0		1	$60	30		100 or more		
Grand Rapids		.16	A	0		2	$65-$75	36	20	0		
Nashville		.267	.025+	3	$50	1	$50	75	10	50		
Lowell			.045	0		?	?	0	0		13	1
Cambridge	1,000[8]			0		1	$50		80[21]	100		
Spokane	13		0	1	$85	1	$75	0				
Albany	304	.11		1	0				90[21]			

[1]Additional beds in state sanatoria.
[2]Estimated.
[3]Chiefly children's. The State of Pennsylvania has eight additional nurses in Philadelphia.
[4]100 beds in addition for the insane.
[5]4500 more reported in last five years moved out of town or could not be found since.
[6]350 Incip. and 430 Mod. Adv., all in State Sanatoria, about ¼ of them, Boston cases.
[7]The private nurses also receive board. The State of Pennsylvania has six additional nurses at $65 per month in Pittsburg.
[8]Approximate.
[9]Employe Tuberculosis Hospital.
[10]Includes a few for incipient.
[11]One for every 500 of population.
[12]Not all free.
[13]Includes Sanatorium expense.
[14]Includes Tuberculosis Sanatorium expense.
[15]For children.
[16]Includes smallpox hospital and collection and disposal of garbage and ashes
[17]Uniforms furnished.
[18]Exclusive of smallpox hospital only.
[19]Reported in 1912.
[20]At State Sanatorium.
[21]All forms.

A—Not available.
B—Laboratory work only.
C—$.888 per patient in hospital.
D—Done by county.
E—Done by county and Alameda County Anti-Tuberculosis Society.
F—Disinfection only.

*Statistics from last Annual Report of the Washington, D. C., Association for the Prevention of Tuberculosis.
†City.
‡Charity.

Is the Tuberculosis Death Rate Declining?

See Table I.

The 1912 rate shows decreases in all cities excepting Detroit, Buffalo, Cincinnati, Toledo and Albany as compared to 1900. New York shows a decrease of 31.4%, Brooklyn taken alone, 37.6%, St. Louis 32.1%, Boston 39.6%, Pittsburgh 31.2%, San Francisco 49.8%, Milwaukee 38.7%, and so on.

Seventeen cities of the forty-one, show a pulmonary tuberculosis death rate of more than 10% of all deaths. Buffalo's percentage is 8.1%, though showing no decline in recent years.

It will be disappointing to Buffalonians to learn that Buffalo has shown an increase in its pulmonary tuberculosis death rate since 1900. No year since 1900 has shown a lower death rate than 1900. Those familiar with the facts in our city will readily see one reason. We have not had anything like enough beds for the care and segregation of advanced cases. Plans are now under way to provide hospital beds, but as yet they are not ready for occupancy. It was the realization of this fact which impelled our Committee on Municipal Development last October to urge that emergency provision be made for the care of from 200 to 300 advanced cases. Buffalo and all other cities must realize that the campaign against tuberculosis cannot be successfully fought with anything less than the greatest energy being displayed.

Summary of Replies.

For convenience the replies to the questions submitted are summarized. Detailed replies to each of the non-statistical questions will be found beginning with page 14.

Question No. 12.

Sixty-six believe increased hospital beds and segregation of advanced cases necessary to a decreased death rate. Two qualify their opinions by emphasizing the need for higher standards in the administration and management of hospitals for advanced cases. Drs. Ford and Bishop of Cleveland believe that patients in the earlier stages are more dangerous to the community than are those in the advanced stages.

Question No. 14.

Fifty-eight believe, unqualifiedly, that every effort should be made to get patients out of their homes and under hospital control. Three others qualify by specifying "advanced cases." Four add—"if unable to live under sanitary conditions." One says—"isolate, not necessarily in hospitals." One adds—"except in exceptional cases." Four say—"not every case," and only one replies—"that patients will do better in their homes."

Question No. 15.

A great variety of measures are advised in order to reduce the death rate from tuberculosis. These have been summarized for convenience of analysis into seven divisions.

I. Hospital and Dispensary.

Special dispensaries.
Examination of exposed in family.
Sanatoria for early cases.
Hospitals for advanced cases.
Higher standard of hospital care for advanced cases.

II. Sanitary Control.

Registration.
Sanitary supervision at home.
Segregation.
Segregation of incipient cases.
Segregation of families when necessary.
Bureau of Tuberculosis with good co-operation with all social agencies.
Control by Health Dept. of hospital admissions and discharges.
Destruction of certain infected houses.
Fumigation.
Tested milk.

III. Industrial.

Medical inspection of factories and workshops.
Prevention of over-work and low wages.
Improved sanitary conditions in dusty trades.
Physical examination of young about to enter dusty trades, with elimination of physically unfit for trades predisposing to tuberculosis of the lungs.
Reduced cost of living.
Industrial districts in country, rather than city.
Examination of employees at work.

IV. Housing.

Enforcement of building laws allowing more light and air.
Better houses, not tenements.
Improved housing.

V. Education, relating to tuberculosis.

Of patients.
Of nurses.
In public schools.
Popular.
Higher standards in the examining of physicians for license to practice.
Educating public as to economic laws.

VI. Children and Schools.

Sanatoria for children.
Open air schools, more.
Preventoria.
Better ventilation of schools.
School nurses.
Child Hygiene work.
Medical school inspection.
Careful watching of children.

VII. General.

Eradication of bovine tuberculosis.
Public relief to families of patients in sanatoria.
Home hospital treatment as in New York City.
Better trained, more efficient, better paid health officers.
More adequate appropriations for health departments.
Limitation of defectives, i.e., feeble minded and defectives, where tuberculosis is only a factor.
Open air life.
"After care" of "cured" cases.
Employment of "arrested" cases in agriculture.

Question No. 16.

Sixty believe, unqualifiedly, that the work of tuberculosis inspectors and nurses is limited in effect without hospital segregation. Seven say "yes," but with certain qualifications. One replies, "not necessarily." One says, "slightly." One believes that too much has been made of the question of bed capacity and segregation, and that the real emphasis should be put on the kind of hospitals that are to be built and on efficiency of management, calling attention to certain institutions where, because of inefficient management, the bed capacity is always in excess of the number of patients, and concludes that good management would secure the voluntary admission of patients, and that to forcibly detain in institutions affording less than the highest standard of care would be a crime.

Question No. 17.

Thirty accept, unqualifiedly, the opinion of Newsholme and Philip, that the death rate declines in almost exact proportion to the number of beds provided. Fifteen accept this opinion, with qualifications. Two say, "up to a certain point." Three conclude that "a certain correlation exists." Three say, "it seems reasonable." Three hold their judgment in suspense. Three reply, "not necessarily." One says, "not in advanced cases." Only six reply "no." One's reply is contained in the concluding statement in the summary referring to question 16, (which see)

Question No. 18.

Out of 72 replying, only nine had any information as to the percentage of infection caused by patients remaining in their homes. This important matter of examining the exposed should be followed up more carefully in all our clinic and visiting nurse work. The Chicago examinations of 7,000 children under sixteen, mostly from tuberculous families, with positive findings in 31.5% of cases, and a diagnosis of "suspicious in 5.2% more, are indicative of what aggressive clinic work will disclose. Cleaveland Floyd finds infection in 20% of children of tuberculous families. Buffalo figures show at least one additional unsuspected case of pulmonary tuberculosis (clinical diagnosis) in 37% of 361 families examined.

Dr. Flick's conclusions may be found in the articles referred to in his reply. The health officer of San Francisco says "40% * * * treated at the tuberculosis hospitals are among contacts with open cases."

Dr. Richard Cabot's statement "that the hereditary factor is still the largest," and that "infection by contact is less important," is unique as being held by no other of those replying. Dr. White's belief that the home would be as safe as the hospital *under proper supervision*, quite begs the question in the italicized words (the italics are ours) with which he qualifies his statement. Miss Lent's Baltimore figures, as well as all we know from other sources, tends to prove that proper supervision in the houses of consumptives cannot be guaranteed.

Question No. 19.

Sixty-two believe, unqualifiedly, that tuberculosis is the most important disease for a health department to control when regarded from the viewpoint of morbidity, mortality, and the economic loss to the community. Six believe so with qualifications. Three reply "no," unqualifiedly. Two reply "no," with qualifications. Two say that certain other diseases are equally important.

Question No. 20.

Fifty-three reply that "where sufficient accommodations to care for an appreciable percentage of cases do not exist, they would favor declaring the presence of so many sources of infection an emergency, justifying the quickly supplying of hospital accommodations without "red tape" and "slow procedure." Seventeen reply unfavorably. Three say "no" as to their own localities for local reasons, but do not indicate their view on the general proposition.

Seventy-five per cent. of the country's most eminent leaders in public health and tuberculosis work, agree with the view urged upon our Buffalo authorities by the association's committee on Municipal Development in October, 1912, that the presence of many unhospitalized consumptives in the city, constituted an emergency which warranted the quick supplying of hospital accommodations without "red tape" and "slow procedure", though the Buffalo authorities refused to accept our view. It is gratifying to the association's officers and committee to be supported by a large percentage of the competent opinion of the country, but, much more significant is the evident impatience against the unwillingness to attack tuberculosis with real fervor and vigor, as though we really meant to exterminate it. *Twelve inch guns* and not *fire-crackers* must be our armament, if we mean to win. Patience is often a virtue, but our brothers and sisters die while we dally.

Question No. 21.

Sixty-six believe that "more efficient measures of a broader nature than now prevail generally, must be employed to obtain results which our present knowledge would lead us to believe probable." One says probably. Only three say "no." Clearly there is a general recognition that only the beginnings of an adequate public health policy in relation to stamping out tuberculosis have been made. The time seems ripe for more aggressive action. All active working organizations, public and private, should prepare for the coming more thorough-going campaign by analyzing our present methods and achievements, with a view to an advance all along the line.

Detailed Replies to Questionaire.

Question No. 11—To what do you ascribe decrease, or lack of decrease, in tuberculosis death rate?

Ernest J. Lederle: **Decrease**—The local anti-tuberculosis campaign: (a) Educational. (b) Sanatoria, hospitals, clinics, home supervision by nurses.

Joseph S. Neff: **Decrease**—Educational work, examination of sputum, early diagnosis, private activities.

Thomas B. Shea: **Decrease**—Instruction, education and supervision of all tuberculosis cases, and removal of advanced cases to hospital, and forcible removal if necessary of all cases that are liable to be a menace to a family or neighborhood.

E. C. Ford and R. H. Bishop, Jr.: **Increase**—Better diagnosis.

C. Hampson Jones: **Decrease**—The decrease of only .05% does not show the true decrease produced by Department nurses and public education (measures employed), because the greatest number of deaths (1511) was in 1904, after which the measures were introduced.

J. D. Crawford: **Increase**—Failure of City Council to provide hospital for consumptives. People voted bond issue of $250,000 for hospital in 1910, but site was not selected until February 17, 1913.

Guy L. Kiefer: **Decrease**—Educational work mostly, and to some extent to relief work. Examination of all members of a family in which there is a case.

R. G. Brodrick: **Decrease**—

(1) Special ordinance requiring physicians to report cases of tuberculosis.

(2) Effect of publicity given this disease.

(3) Establishment of tuberculosis hospitals for advanced cases thereby removing possible sources of infection.

(4) Establishment of tuberculosis clinic, which reaches contacts in early stages.

(5) Fumigation and renovation of rooms occupied by tubercular.

Edith Shatto: **Decrease**—Educational campaign which was started about five years ago which has resulted in sanatoria, dispensaries, visiting nurses, etc.

J. H. Landis: **Decrease**—There has been a gradual decrease, due to educational work done. In my humble judgment the present method of handling tuberculosis the country over is indefensible. It operates through contact. Quarantine is the remedy. It (tuberculosis) differs from the acute infections in its chronicity. Methods must be the same to obtain similar results.

D. D. Chandler: **Decrease**—General improved death rate, and better education and earlier diagnosis. Newark tuberculosis patients are also sent to State Institute at Glen Gardiner, N. J.

William C. Woodward: **Decrease**—To improvement in municipal hygiene; increased knowledge on the part of the public generally as to the contagiousness of tuberculosis; improved facilities for segregation of advanced cases, and improved methods of diagnosis and treatment on the part of physicians, and improved personal hygiene.

L. M. Powers: **Decrease**—To the fact that less are here for treatment, depending more on home treatment than the climate of southern California.

C. E. Dutton: **Decrease**—Educational campaign outlined by Anti-Tuberculosis Committee and carried on by Associated Charities and Health Department nurses, special Tuberculosis Dispensary, anti-spitting ordinances and improved lodging house conditions.

Walter S. Wheeler: **Decrease**—Education of general public, early diagnosis, segregation of advanced cases, activity of all agencies over the country as well as in city.

G. W. Goler: **Increase**—Lack of data relating to the disease and inability of physicians to make an early diagnosis.

Frank W. Wright: **Decrease**—State provides hospitals, of which there are three with from five to six hundred beds. These are not free, but cities and towns are compelled to send all pauper cases to them. Decrease is probably due to earlier diagnosis and prompt out-door treatment, better understanding of disease and possibly disinfection.

M. Goltman: **Decrease**—To the segregation of advanced cases and dissemination of knowledge in regard to prevention of this disease.

Clerk, Board of Health, Dayton, Ohio: **Stationary**—At the present time the county tuberculosis hospital is located in the country, and all deaths are recorded with registrar of township, and not filed with the local Board of Health. The death rate which should be charged against the city remains at an average of the year 1910.

C. C. Slemons: **Decrease**—General campaign of education in this field by local societies, medical societies, work by Department. Combined efforts have made but little decrease, though I know a great deal has been accomplished.

W. E. Hibbett: **Decrease**—We have had slight decrease, but expect the reported deaths to increase as we are closely watching death certificates and find in some cases that many cases signed "La Grippe" and "Pneumonia" are really tuberculosis.

F. A. Bates: There is no tuberculosis hospital in Lowell. Care for patients at their homes, and defray expenses at the state sanatoria.

Bradford H. Pierce: **Decrease**—Decrease due to natural fall of last fifty years, and somewhat to better hygiene and knowledge of cases.

Joseph D. Craig: **Increase**—Tuberculosis increase due in a large measure to non-resident cases sent to hospitals in the city limits and dying there. About 15% of all tuberculosis deaths in institutions in the city are non-residents.

James Jenkins, Jr.: **Decrease**—Education, better housing conditions, milk stations, more hospital facilities.

James Minnick: **Decrease**—

1. Possible increase in birth registration.
2. Educational work of the Institute.
3. Work of the Municipal Tuberculosis Sanitarium nurses.

Karl de Schweinitz: **Decrease**—General increase in practice of hygiene, better living and working conditions, and the segregation of all stages of consumption, especially the bedridden and dying.

Seymour H. Stone: **Decrease**—Hospitals for advanced cases. Dispensary for out-patients. Municipal nurses to unearth cases and see that they are properly provided for. Compulsory registration. Educational work by private agencies, Municipal Health Department and State Board of Health. Aid of press in educational work.

John B. Hawes, 2d: **Decrease**—Segregation of advanced cases, education of people, care of children.

Cleaveland Floyd: **Decrease**—Provision for advanced cases, supervision of cases in homes, sanatoria treatment for early cases, better housing conditions, education.

William Charles White: **Decrease**—General improvement in living conditions.

A. H. Giannini: **Decrease**—Probably the education of the public at large.

S. P. Withrow: **Decrease**—To educational work of Anti-Tuberculosis League.

Ernest D. Easton: **Decrease**—We think the decrease in tuberculosis deaths is due to the increase in hospital and sanatorium facilities by the city, county and state, and also to the educational work that has been done through exhibits, and the visiting nurses.

Gen. George M. Sternberg: **Decrease**—Popular education, improved sanitation, including better milk supply; compulsory registration; segregation in the tuberculosis hospital; free dispensary service; visiting nurses, etc.

F. A. Sampson: **Decrease**—To more accurate reporting of cases and causes of death. This has been much agitated by the tuberculosis organizations.

Edward A. Pierce: **Increase**—Increasing population and belief that this is a health resort.

Montgomery E. Leary: Time too short for any reliable data. (Iola opened but a short time. Reply based upon that fact, evidently—Editor.)

C. Easton: **Stationary**—Death rate practically stationary for the past twenty years. Minnesota, being a comparatively new state, has not attained to a full death rate. Tuberculosis or general tuberculosis percentage about the same as elsewhere. This fact offsetting general downward tendency creates stationary rate.

Robert G. Paterson: **Increase**—Failure to institute state-wide educational work before building state sanatorium.

Rosa Lowe: **Increase**—To lack of co-operation of the city sanatorium with Anti-Tuberculosis Association. Complete reports are not made of all patients admitted to, and dismissed from the sanatorium.

Ethel M. McCormick: **Decrease**—To seven years crusade against it. Some claim sanatorium decreases city deaths because deaths there are charged to county. This is refuted by the fact that in ten years tuberculosis has decreased 28% in Kent County and only 4% in state at large.

John D. Strain: **Decrease**—Decrease due to registration, oversight and fumigation.

Question No. 12—Do you regard increased hospital beds for better care essential to a decreased death rate, and particularly segregation of advanced cases?

Ernest J. Lederle: Yes.

Joseph S. Neff: Absolutely yes.

Thomas B. Shea: Yes.

C. E. Ford and R. H. Bishop, Jr.: I think there is no question of a doubt but that every community needs an increase in the number of hospital beds to care for advanced cases; in addition, they need better care provided for the advanced cases that they are now able to take care of. I think an increase of beds, with better care, is one of the most essential features in the ultimate control of tuberculosis. In the commonly accepted use of the term "advanced cases," I am not in favor of segregation of such cases; to my mind, those are not the cases that are doing the damage—except in selected instances where they are malicious and absolutely unruly. When a case reaches the stage commonly known as an advanced case, and is, for the most part, bedridden and confined to the house, in an advanced stage, I personally believe that he ceases to be the menace—provided the visiting nurse is in touch with him—that he was a short time before when able to be up and about, to work a half day, now and then—making every effort to keep up, and refusing to admit that he had the disease. Segregation of such cases should begin at that time, if it is to be undertaken at all.

C. Hampson Jones: Yes.

J. D. Crawford: Yes.

Guy L. Kiefer: We need a few more beds, but not many (in Detroit).

R. G. Brodrick: This appears to be one of the most important factors.

Edith Shatto: Yes.

J. H. Landis: Yes.

D. D. Chandler: For advanced cases.

William C. Woodward: Yes.

L. M. Powers: Yes.

C. E. Dutton: Most decidedly.

Walter S. Wheeler: Yes.

H. G. Morgan: Yes.

G. W. Goler: Not altogether, but desirable. Education, training, a living wage, lower rent, better housing, cheaper carfare, etc.

Howard Lankester: Yes.

J. M. Perkins: Yes.

C. H. Wheeler: Segregation of tuberculous patients.

B. Becker: Yes.

Frank W. Wright: Yes.

M. Goltman: Yes.

E. C. Levy: Yes.

Clerk, Board of Health, Dayton, Ohio: Yes.

C. C. Slemons: Segregation of advanced cases. There should be laws giving power of control of necessary cases.

W. E. Hibbett: For advanced cases, yes.

F. A. Bates: Yes.

Bradford H. Pierce: Yes.

John B. Anderson: I do.

Joseph D. Craig: Advanced cases should be controlled, preferably in institutions.

Livingston Farrand: I regard increased hospital provision at this time as essential to further reduction in the tuberculosis death rate.

Homer Folks: Yes.

John. A. Kingsbury: Yes.

James Alex. Miller: Yes.

James Jenkins, Jr.: Yes.

Frank E. Wing: Yes.

James Minnick: No. Higher standard of care in both medical and nursing service are necessary first.

Theo. B. Sachs: In the spread of tuberculosis in a community the case in the average workingman's family is the great factor. Efficient care in tuberculosis institutions (right housing. management, nursing, diet, etc.), attracts this class of cases and thus tends to reduce the chances of infection in the community. At present, city and county tuberculosis hospitals for advanced cases attract chiefly the homeless or near homeless; the "family" case runs almost out its course (and infects many) before there is willingness to go to the hospital. We need efficiently managed hospitals for advanced cases, that will attract and keep the average case.

Karl de Schweinitz: Yes.

Lawrence F. Flick: Yes.

F. A. Craig: Very important, at least.

A. W. Jones, Jr.: Yes.

Richard C. Cabot: Surely.

Seymour H. Stone: Yes, of the first importance.

Henry I. Bowditch: Yes.

V. Y. Bowditch: Yes.

Edwin A. Locke: Unquestionably.

Edward O. Otis: Yes.

John B. Hawes, 2nd: Yes.

Cleaveland Floyd: Most essential.

John S. Fulton: Special hospital accommodation for advanced cases, the most effective single instrument for care of tuberculosis.

William Charles White: I do not know.

George H. Evans: Yes.

A. H. Giannini: Yes.

Philip King Brown: Yes.

S. P. Withrow: Yes, but hospital must be efficient.

Ernest D. Easton: We consider segregation of advanced cases very important.

Frederick L. Hoffman: Yes.

Gen. George M. Sternberg: Decidedly. Washington needs hospital provisions for pay patients.

F. A. Sampson: Very desirable, and essential to decrease in the next five to ten years.

Montgomery E. Leary: Hospital beds and segregation are the only methods which give us any hope of success. Until general, we are fooling away time and dollars.

Edward A. Pierce: Yes.

Robert G. Paterson: Undoubtedly.

Rosa Lowe: Yes.

W. Irving Clark: Yes.

William A. Marvel: Yes.

Ethel M. McCormick: Most certainly.

John D. Strain: Yes.

R. J. Newton: Yes; working for mandatory county hospital law.

M. P. Ravenel: Yes; regard segregation of advanced cases as especially important.

William J. Douglas: Yes, particularly the latter.

Lawrason Brown: Yes.

Henry S. Goodall: Yes.

A. H. Garvin: Yes.

Question No. 14—Is tuberculosis not plainly a house and indoor disease, and should not every effort be made to get patients out of their homes, and under hospital control?

Ernest J. Lederle: Yes.

Joseph S. Neff: Yes.

Thomas B. Shea: Yes; if patient is not able to live under sanitary conditions, receive proper care, namely medical treatment, sufficient food and careful supervision.

C. E. Ford and R. H. Bishop, Jr.: I think that there is no question but that tuberculosis is a house and indoor disease; but I do not subscribe to the belief that in every instance an effort should be made to get the patient out of the home and into a hospital.

C. Hampson Jones: Yes.

J. D. Crawford: It is impossible to get all patients into hospitals, but hospitals should be provided at least for advanced cases.

Guy L. Kiefer: Not all patients.

R. G. Brodrick: Provided the case is open (infectious) and the home is unable to give necessary care and isolation.

Edith Shatto: Yes.

J. H. Landis: Yes, house and trade. The closer the contact the wider the spread.

D. D. Chandler: In advanced cases.

W. C. Woodward: Yes.

L. M. Powers: Yes.

C. E. Dutton: Yes.

Walter S. Wheeler: Yes.

H. G. Morgan: Yes.

G. W. Goler: It is not a house disease, but a personal disease; disseminated by persons, not things. Therefore, the sooner we get patients out of the house the better.

Howard Lankester: Not necessarily.

J. M. Perkins: Yes.

C. H. Wheeler: Not necessarily hospital—but isolated.

B. Becker: Yes.

Frank W. Wright: Yes.

M. Goltman: Yes.

E. C. Levy: Yes.

Clerk, Board of Health, Dayton, Ohio: By all means.

C. C. Slemons: Yes.

W. E. Hibbett: Yes.

F. A. Bates: Yes.

Bradford H. Pierce: All but the incipient cases, and these when home condition are not right.

John B. Anderson: Yes.

Livingston Farrand: In the great majority of cases it would be best to get the patients out of their homes and under hospital control.

Homer Folks: Yes.

John A. Kingsbury: Yes.

James Alex. Miller: Advanced cases, yes.

James Jenkins, Jr.: Yes.

Frank E. Wing: Yes.

James Minnick: Yes.

Theo. B. Sachs: Yes, particularly the "open" cases.

Karl de Schweinitz: Yes.

Lawrence F. Flick: Yes.

F. A. Craig: When proper care and supervision cannot be provided at home.

Richard C. Cabot: Yes.

Seymour H. Stone: Yes.

Henry L. Bowditch: Yes.

V. Y. Bowditch: Yes, in cases where hygienic methods cannot or will not be carried out.

Edwin A. Locke: As a rule, most emphatically yes.

Edward A. Otis: Yes.

John B. Hawes, 2nd: Yes.

Cleaveland Floyd: Most surely.

John S. Fulton: Can hardly say "Yes" to a question so sweeping.

William Charles White: It would accomplish more good to care for them properly in their homes.

George H. Evans: Yes.

A. H. Giannini: Every case of tuberculosis should be placed in a sanatorium specially provided and equipped for the handling of such cases.

Philip King Brown: Yes, the educational value to the curable case is necessary, and the protection of the family from the advanced case also necessary.

S. P. Withrow: Yes; especially the unintelligent.

Ernest D. Easton: Yes; a house disease from family infection.

Frederick L. Hoffman: Yes.

F. A. Sampson: Yes.

Gen. George M. Sternberg: Yes.

Montgomery E. Leary: Yes; absolutely, except certain exceptional cases which would require some judgment to be used.

C. Easton : Generally.

Edward A. Pierce: Yes.

Robert G. Paterson: Yes.

Rosa Lowe: Yes.

W. Irving Clark: Yes.

William A. Marvel: Yes.

Ethel M. McCormick: Very plainly.

John D. Strain: Yes, by all means.
R. J. Newton: Yes.
M. P. Ravenel: Yes.
William J. Douglas: Yes.
Lawrason Brown: Yes.
Henry S. Goodall: Yes.
A. H. Garvin: Yes.

Question No. 15—What measure do you advise to hasten a decrease in death rate from tuberculosis?

Ernest J. Lederle: Improved housing conditions; popular education; registration; special dispensaries; sanatoria, county; hospitals, county; segregation as far as possible; at present, sanitary supervision of patients at home.

Joseph S. Neff: Segregation, institutional care for advanced cases. Legislation allowing forcible removal. Increased education of masses and employees.

Thomas B. Shea: Removal of all advanced cases to hospital if they cannot receive proper medical care, good housing and careful supervision.

C. E. Ford and R. H. Bishop, Jr.:

1. The establishment of a Bureau of Tuberculosis under Department of Health—properly financed, properly manned—and which shall have charge of the registration of all cases of tuberculosis and shall head up all the tuberculosis work in the city. Through this department shall be secured what I consider one of the most important parts of the work—co-operation and active sympathy of every practicing physician in the city, which will bring about a more thorough and complete reporting of cases.

2. Districting the city, with a dispensary located in each district; paid physician and an adequate force of trained nurses confining their efforts to each particular district.

3. The development of other bureaus of the Health Department; such, for instance, as the Tenement House Department, the Bureau of Child Hygiene.

4. Adequate system of medical inspection in public schools.

5. Development of the closest kind of co-operation between the Health Department and private philanthropic organizations throughout the city.

6. The control, through an Hospital Admission Bureau, located in the Bureau of Tuberculosis, Health Department, of admission and discharge of all cases of tuberculosis to any institution —public or private—within the city.

7. The development of a preventorium for anemic, under-fed children, coming from poor homes and homes where there is tuberculosis; a sanatorium for tuberculous children and open-air schools.

8. Constantly increasing our accommodations for advanced cases and early stage cases.

9. Medical inspection of our factories and work shops.

10. Authority on the part of the Health Department to segregate all malicious and unruly cases; authority to keep in a hospital all cases which are living under conditions which do not come up to the standard provided for the patient's own welfare and comfort, and the protection of the other inmates of the home.

C. Hampson Jones:
Segregation of advanced cases.
Tuberculosis nurses.
Post hospital care of "cured" cases.
Public tuberculosis dispensaries.
Public education.
Public school education.

J. D. Crawford: Hospital and also dispensaries in various districts of the city with adequate number of physicians and visiting nurses; also closer inspection of factories, mercantile establishments and other places of work.

Guy L. Kiefer: Reporting of all known cases is the most necessary. We have a law for this, but do not get all cases. We know of 600. There are probably 2500 to 3000.

R. G. Brodrick:

1. Education of school children in nature of disease.

2. Hospital treatment for advanced cases.

3. Dispensary treatment, including sanatorial care when necessary, for earlier cases.

4. Tuberculin tested milk (or pasteurization of tuberculous milk) for children.

5. Rigid enforcement of building laws, so as to furnish light and fresh air to all rooms.

6. Reduce cost of living of working class.

7. Encourage industrial districts in country rather than thickly congested cities.

Edith Shatto: The following, of course, does not touch the fundamental causes of overwork and less than a living wage.

1. Increased educational work, particularly in schools, workshops and among physicians.

2. Examination of employees in workshops.

3. More fresh air in schools as a preventive measure.

Most Important.—Increased sanatorium facilities accompanied by more visiting nurses.

J. H. Landis: Segregation of the incurable. Hospitalization and cure of the curable. Support by the municipality of the families of bread winners undergoing treatment. I cannot make this point of isolation of the patient too strong. The chain of contact infection is centuries old. Break it, and the problem is solved.

D. D. Chandler: Forcible removal of advanced cases.

W. C. Woodward: Increased education with regard to transmission of disease, segregation and eradication of bovine tuberculosis and increased knowledge of personal hygiene.

L. M. Powers: Sanatoria. Proper report of cases. Sanitation. Isolation of incipient cases.

C. E. Dutton: Segregation of advanced cases, continuation of educational work along all lines pertaining to the prevention and control of tuberculosis infection.

Walter S. Wheeler: The segregation of advanced cases and those particularly dangerous to public health; the changing of our housing laws, more air and sunshine.

H. G. Morgan: Isolation of all chronic cases, and proper hospital arrangements and out-door treatment for incipient cases.

G. W. Goler: The measures are nearly all economic. The tuberculosis question is more nearly one of education for citizenship and better civics than of pure medicine, sanatoria and hospitals, serums and disinfectants and "stop spitting on the sidewalk." It is a matter of wages, rent, housing, etc., and the training of boys and girls to be citizens.

Howard Lankester: Education as to proper treatment and care.

J. M. Perkins:

Isolation of cases.

Reporting of all cases.

Tuberculosis dispensaries.

Fumigation of rooms occupied by patients.

Hospital control.

Legal control of tuberculosis infection.

C. H. Wheeler: Open-air life, sanitation, isolation of cases, fumigation. Educational measures with reference to public and patient.

B. Becker: Prevention of spreading tuberculosis by patients, first of all. Bovine tuberculosis of secondary importance.

Frank W. Wright: Sanatoria that are absolutely free, and a law compelling all to go to such.

M. Goltman: A prompt report of all cases to this Department. Daily visits, or at least bi-weekly visits, by visiting nurses, who will explain the transmissible nature of this disease, and method of prevention to be used. An absolute outdoor life, or in case of bed patients, provision of maximum amount of fresh air and sunshine to those afflicted. Rest or graduated exercise according to the demand of each case; proper food. All this work should be under the supervision of this Department.

Clerk, Board of Health, Dayton, Ohio: Provide more visiting nurses, better pay for services rendered; a larger tuberculosis hospital; accommodation for at least 150 beds; making it compulsory for physicians to report all tuberculosis cases. Board of Health to exercise same jurisdiction as in other dangerous and communicable diseases.

C. C. Slemons: Laws giving absolute authority for control of all classes of tuberculosis cases. Separation of families when necessary. Segregation. Protection of the young in tuberculosis homes. Same supervision needed as in smallpox; will decrease death rate in short time.

W. E. Hibbett: Educational work. District nursing. Segregation of all cases when possible, preferably in hospitals.

F. A. Bates: The establishment of special hospitals and the segregation of cases.

Bradford H. Pierce: Segregation of advanced cases particularly.

John B. Anderson: Hospitalization for those in last stages. Proper supervision for all cases.

Joseph D. Craig: The proclamation of tuberculosis as a contagious, communicable disease, and the control of the spitting cases by law. At least supervision under the terms of law, and perhaps quarantine, should be undertaken in all cases of spitting tuberculosis.

Livingston Farrand: I cannot answer this question briefly other than to recommend the extension and more rigid observance of the program usually recommended. I believe that we have reached the point where it is necessary to enforce compulsory segregation of selected cases.

John A. Kingsbury: More hospital and sanatorium beds, more visiting nurses and dispensaries. Better trained, higher salaried, and more efficient health officers, all supplemented by immediate establishment of such thorough treatment as is given in the Home Hospital maintained by the N. Y. A. I. C. P.

James Alex. Miller: Too numerous to itemize, and I am not entirely sure where the emphasis should be laid. Tuberculosis cannot be suppressed by any one method, not even by segregation.

James Jenkins, Jr.: Good housing. Good factory conditions. Good pay. More hospitals and sanatoria.

Frank E. Wing:

1. Power of compulsory removal (in selected cases).
2. Examination of employees for tuberculosis.
3. Open air schools.
4. Increased hospital facilities for "open" cases.
5. Increased dispensary and nursing work.

James Minnick:

1. Much higher standard of care in tuberculosis hospitals.
2. Better enforcement of Housing Law.
3. Increased police power of Health Department.

Theodore B. Sachs:

1. Construction of right kind of hospitals for advanced cases; efficient medical nursing and dietary management of such institutions; management that will attract and keep the average case.
2. Tuberculosis dispensaries.
3. Sanatoria.

4. Open air schools.
5. The important thing, education of nurses.

Karl de Schweinitz: Educational work, particularly in the schools; provision of adequate hospital beds and compulsory segregation of careless cases and such consumptives as cannot be given adequate care at home.

Lawrence F. Flick: Hospital care of advanced cases near their own homes.

A. W. Jones, Jr.: Establishment of Tuberculosis Division of the Health Department; appointment of Tuberculosis Commissioner with power over tuberculosis institutions and authority to isolate cases when deemed necessary; also a corps of seventy tuberculosis nurses with social service training.

Richard C. Cabot: High standard tuberculosis dispensaries, with visiting nurses. Segregation of advanced cases. Prosecution of all doctors failing to report cases. Increase in standards of examinations of physicians when registering for right to practice medicine.

Seymour H. Stone:
1. Hospitals for advanced cases.
2. Dispensary.
3. Nurses.
4. Registration.

Henry I. Bowditch: Careful watching of children exposed to human tuberculosis infection. Separate same as much as possible from source of such infection until past puberty at least.

V. Y. Bowditch: The increasing effort to strengthen all present known methods of combating the disease; increased numbers of sanatoria. Hospitals for far-advanced cases, dispensaries, farm colonies, open air schools, etc.

Edwin A. Locke: Compulsory reporting. Free disinfection. Inspection. Care of advanced in hospitals. Education.

Edward O. Otis: Increased accommodations for advanced cases and free dispensaries with visiting nurses or social workers.

John B. Hawes, 2d: Centralization of all cases under one board —State Board of Health. Further establishment of local hospitals for advanced cases, local dispensaries, and laws to handle the vicious, careless and unteachable consumptive.

Cleaveland Floyd: Isolation of all advanced cases, by force if necessary. Examination of families where tuberculosis is present, by units. Prompt reporting of the disease and supervision of all cases in the home by Board of Health nurses. Further education of nurses. Better building laws.

John S. Fulton: Registration; instructive visiting nurses; dispensaries; beds for advanced cases.

William Chas. White: Proper care of children—food, rest and air. Destruction of certain houses. Proper cleaning of other

houses. Proper supervision of consumptives in homes. Police authority. Some segregation.

George H. Evans:
1. Segregation of advanced cases.
2. State legislation compelling municipalities to properly house their advanced cases and enforce regulations regarding reporting, renovations, etc.
3. A comprehensive system for enforcing wise housing conditions. Provision for the employment of "arrested" cases through some scheme of State Agricultural Stations.

A. H. Giannini:
1. The strict enforcement of the Tenement House and cubic air ordinances.
2. The segregation of all cases of tuberculosis.
3. A very active educational campaign.

Philip King Brown:
1. Segregate advanced cases. Laws making it possible where desirable.
2. Teach preventive measures in **schools,** workshops, clubs, etc., "wherever two or three are gathered together."
3. Teach that hemorrhage, long-standing cough, loss of weight, night sweats, means usually too advanced trouble for cure. Teach that cough of more than three weeks, slight losses of weight, deranged body functions, anemia, etc., demand investigation.
4. Care for favorable cases in state hospitals. Make cities and counties pay their board, and provide a local place where they can be kept two months in order to determine whether favorable or not.

S. P. Withrow: Enforced sanitation in homes, public places and in factories. Increased restraint of menacing cases. Separate hospital provisions for the detention of refractory cases.

Ernest D. Easton: Segregation. More open air schools, more individual instruction. Better working conditions, better housing conditions and general sanitary conditions respecting the streets, milk supply, etc., enforced.

Frederick L. Hoffman: Improved conditions of work in dusty trades. Physical examination of young persons about to enter such trades and the elimination of the physically unfit for such trades as predispose to tuberculosis of the lungs; also adequate sanatoria accommodation for all classes of cases, but particularly the patients in the last stages of the disease.

Gen. George M. Sternberg: More adequate appropriation for Health Department. School nurses. Municipal tuberculosis nurses. More fresh-air schoolrooms. Open-air school for tuberculous children. Increased appropriation for municipal tuberculosis hospital. Pasteurization of commercial milk supply for the District. Law for compulsory removal of careless, dangerous tuberculous patients.

F. A. Sampson: Reporting of cases by physicians; hospital care for all advanced cases; segregation of advanced cases; nurses for visitation in houses and families of patients, whether patient is in hospital or not; housing regulations. Educational propaganda among the masses.

Montgomery E. Leary: The quicker we absolutely segregate the advanced cases, by so much sooner will we really handle the disease. Until that time we are wasting time and money; but it is a necessary waste, which is and should be used in educating the public up to accepting such restrictions. Let us begin on the "vicious" cases—vagrants, paupers—and work it out to a successful issue.

Robert G. Paterson:

1. Educational.
2. Visiting nurses.
3. Hospitals for advanced cases.
4. Legislation.

Rosa Lowe: Registration of all cases of tuberculosis. Isolation of all infectious cases, and co-operation of all agencies interested in the control of this disease.

W. Irving Clark: Hospital provision for advanced cases in every city of over 50,000. State hospitals at special sites (high ground in country) for incipient and moderately advanced cases.

Ethel M. McCormick:

Segregation by removal and quarantine.
Physical examination of employees.
Thorough medical inspection of schools.
Shorter working hours, increased facilities for recreation.
Invalid pensions, proper housing code, clean milk and food.
Higher wage.

John D. Strain: Isolation.

R. J. Newton:

1. Hospital care.
2. Dispensary nurses, etc.
3. Segregation of advanced careless cases.
4. Sanitary houses, not tenements.
5. Sanitary workshops.

M. P. Ravenel: Education. Sanatoria. Convalescent farms—hospitals for advanced cases. I think city and county sanatoria for advanced cases very important to overcome the objection people have to being sent away.

William J. Douglas: Segregation. Inspections and examination of employees by physicians employed by firms with an arrangement with the local authorities for treatment of discovered cases. Publicity of the economic and not sentimental loss to the community through tuberculosis.

Lawrason Brown: Make these hospitals so attractive that they will be sought by patients, who will desire there to remain until the end.

Henry S. Goodall: Provision of adequate hospital beds for taking care of all cases that cannot be taken care of at home, and compulsory segregation of patients in such beds whenever it is found necessary.

A. H. Garvin:

1. Isolation of advanced cases.
2. Better living and working conditions.
3. Limitation of defectives where tuberculosis is only a factor, to wit, alcoholism and feeble-mindedness.
4. Treatment and cure of early favorable cases where alcoholism and feeble-mindedness does not appear as a factor.

Question No. 16.—Is not the work of health inspectors and tuberculosis nurses limited in effect without hospital segregation?

Ernest J. Lederle: Yes.

Joseph S. Neff: Yes.

Thomas B. Shea: Yes; if not cared for as stated in No. 15. (See reply to No. 15.)

C. E. Ford and R. H. Bishop, Jr.: The value of hospital segregation, to my mind, is that it gives us a club—something to hold over the heads of the people to bring about better conditions in the home.

C. Hampson Jones: Yes.
J. D. Crawford: Yes, indeed; very much.
Guy L. Kiefer: Yes, in some cases.
R. G. Brodrick: Yes.
Edith Shatto: Yes.
J. H. Landis: Yes.
D. D. Chandler: Yes.
William C. Woodward: Yes.
L. M. Powers: Yes.
C. E. Dutton: Yes.
Walter S. Wheeler: Yes.
H. G. Morgan: Yes. Decidedly so.
G. W. Goler: Yes.
Howard Lankester: Not in my opinion.
J. M. Perkins: Yes.
C. H. Wheeler: Possibly.
B. Becker: Yes.
Frank W. Wright: Yes.
M. Goltman: Yes.
Clerk, Board of Health, Dayton, Ohio: Yes.
C. C. Slemons: Yes.
W. E. Hibbett: Yes.
F. A. Bates: Yes, very much.
Bradford H. Pierce: Yes.
John B. Anderson: Yes.

Joseph D. Craig: Not necessarily.
Livingston Farrand: Yes.
Homer Folks: Yes.
John A. Kingsbury: Yes; limited.
James Alex. Miller: Yes.
James Jenkins, Jr.: Yes.
F. E. Wing: It is.
James Minnick: See letter.
Theo. B. Sachs: Yes.
Karl de Schweinitz: Of careless, bedridden advanced cases, yes.
Lawrence F. Flick: Yes.
F. A. Craig: Yes.
Richard C. Cabot: Yes.
Seymour H. Stone: Yes.
Henry I. Bowditch: Yes.
V. Y. Bowditch: Yes.
Edwin A. Locke: Yes.
Edward O. Otis: Yes.
John B. Hawes, 2nd: Undoubtedly.
Cleaveland Floyd: Yes, to some extent.
John S. Fulton: Yes, and vice versa.
William Charles White: Slightly.
George H. Evans: Yes.
A. H. Giannini: Yes.
Philip King Brown: Yes; the only excuse for tuberculosis nurses is to try to do poorly what the hospital isn't permitted to do.
S. P. Withrow: Yes, almost useless.
Ernest D. Easton: Our Health Department does not want to enforce the removal law.
Frederick L. Hoffman: Yes.
Gen. George M. Sternberg: Yes.
F. A. Sampson: Quite limited.
Montgomery E. Leary: "Rest, Air, Food," in the slums along with other advice is a joke.
C. Easton: The private nurses in St. Paul and eleven other cities do not accomplish much but relieve suffering.
Edward A. Pierce: Yes.
Robert G. Paterson: Yes.
Rosa Lowe: I suppose so. We have none.
W. Irving Clark: Yes.
William A. Marvel: Yes.
Ethel M. McCormick: Very much so.
John D. Strain: It certainly is.
R. J. Newton: Yes.
M. P. Ravenel: Yes, very much so.
William J. Douglas: Greatly.
Lawrason Brown: Yes.
Henry Goodall: Yes.
A. H. Garvin: Yes.

Question No. 17.—Do you accept the opinion of Newsholme and Philip that the death rate falls in almost exact proportion to the number of beds available for their care?

Ernest J. Lederle: Yes.
Joseph S. Neff: Yes.
Thomas B. Shea: There is no question but that the removal of advanced and careless cases to the hospital is removing a source of infection for other cases.
C. E. Ford and R. H. Bishop, Jr.: I do not, except up to a certain point.
C. Hampson Jones: I do.
J. D. Crawford: Yes.
Guy L. Kiefer: No.
R. G. Brodrick: This would appear to be a logical deduction.
Edith Shatto: Yes.
J. H. Landis: I am not familiar with the article in which this opinion appears. It looks plausible.
D. D. Chandler: What Newsholme says is (p. 152) "home treatment of advanced cases is a predominant cause of the continued spread of tuberculosis."
William C. Woodward: Accept the statement as to the proportion but not as to the necessary cause of the reduction, as it is probable that there are many factors.
C. E. Dutton: I believe it a reasonable theory.
Walter S. Wheeler: Yes.
H. G. Morgan: Yes.
G. W. Goler: No.
Howard Lankester: No.
Frank W. Wright: No.
M. Goltman: Yes, with the exception of people in good circumstances financially.
Clerk, Board of Health, Dayton, Ohio: Yes.
C. C. Slemons: Yes.
F. A. Bates: Yes.
Bradford H. Pierce: Not necessarily.
John B. Anderson: I am not prepared to say.
F. A. Craig: Their view seems to coincide with the statistics available.

Livingston Farrand: I do not believe that we are in a position to decide finally as to the legitimacy of Newsholme's statistics. Philip's figures are more in the nature of estimates and are, therefore, not of as much importance as Newsholme's. The most important attack on Newsholme's work is that of Karl Pearson, but so far as I am able to judge in the controversy, the honors remain rather with Newsholme. In spite of this, I have always felt that Newsholme drew more conclusions from his figures than they warranted and I have never been able to accept his conclusion as proven. There can be no doubt, nevertheless, in my opinion, that there is a certain correlation between the amount of hospital provision and the incidence of tuberculosis.

Homer Folks: I believe that hospital provision is the most important measure for reducing the morbidity and mortality from tuberculosis. I feel that the educational campaign and kindred movements in public health and social work play a somewhat important part in the reduction of the tuberculosis death rate and will become increasingly important factors.

John A. Kingsbury: I accept it, but have little information beyond what they have (Newsholme and Philip) given.

James Alex. Miller: No. Other factors must be considered. Newsholme's statistics are open to question.

James Jenkins, Jr.: No.

Frank E. Wing: Yes. Of course, other things influence the death rate.

James Minnick: No. See letter.

Theo. B. Sachs: Yes; and efficiency of treatment.

Karl de Schweinitz: We have been working upon this theory.

Lawrence F. Flick: Yes; see my article, "Special Hospitals for Treatment of Tuberculosis," February 9th, 1890, in Teines and Register, and also Transactions of College of Physicians, Philadelphia. There will also be an article on this subject in Lippincott's Magazine, February or March number, also "Prevention of Tuberculosis," Transactions of American Public Health Association, Vol. XVI.

A. W. Jones, Jr.: Not entirely.

Seymour H. Stone: Yes.

Henry I. Bowditch: Yes.

V. Y. Bowditch: I cannot say, but believe their opinions are worthy of careful consideration.

Edwin A. Locke: Largely true.

Edward O. Otis: Yes.

John B. Hawes, 2d: As to advanced cases, yes; but not necessarily, exactly.

Cleaveland Floyd: Yes.

John S. Fulton: Direct proportion, not exact. Causes of disease are many and complex.

William Charles White: No.

George H. Evans: I do not know from personal observation, though I concede that it seems reasonable.

A. H. Giannini: Yes.

Philip King Brown: Can't say—it looks that way. San Francisco with favorable climate and few beds has higher death rate than any other large city in America except New Orleans.

S. P. Withrow: With a great deal of qualification.

Ernest D. Easton: Open-air schools and other things will also make a big showing.

Frederick L. Hoffman: No; but there can be no doubt of a direct relation between bed accommodation and disease prevalence.

Gen. George M. Sternberg: Yes, provided a way is found to compel dangerous patients to use the beds.

F. A. Sampson: Not yet.

Montgomery E. Leary: I believe it to be true.

C. Easton: I do.

Edward A. Pierce: Do not know. (Our state is a new one.)

Robert G. Paterson: Yes.

W. Irving Clark: I should consider this probable.

William A. Marvel: Yes.

Ethel M. McCormick: Yes, provided all "poor house" features are eliminated, and standards of sanatoria, municipally controlled, are raised.

John D. Strain: Yes, I do.

R. J. Newton: Believe it, but cannot prove it from my experience.

M. P. Ravenel: Yes.

William J. Douglas: Not in advanced stage cases.

Lawrason Brown: Yes, if aid is refused to the patient who remains at home.

Henry S. Goodall: Yes.

A. H. Garvin: Yes, to an extent

Question No. 18—(a) Have you investigated the percentage of infection caused by the patients remaining in their homes? (b) What are your conclusions on this point?

Ernest J. Lederle: (a) No. (b) That it is a very considerable percentage.

Joseph S. Neff: (a) No exact investigation.

Thomas B. Shea: (a) Yes. (b) Cases that are not under proper supervision are probably sources of infection to other members of the family and fellow employees.

C. E. Ford and R. H. Bishop, Jr.: (a) We have made no detailed investigation.

C. Hampson Jones: (a) No.

J. D. Crawford: (b) We have no statistics on that point. There is no doubt that the chief cause of the lack of decrease in death rate is due to advanced cases remaining at home, because the majority cannot get suitable treatment and care at home.

Guy L. Kiefer: (a) Wherever possible. (b) Cannot give definite conclusions.

R. G. Brodrick: (b) Forty per cent. of cases treated at the tuberculosis hospitals are among contacts with "open" cases.

Edith Shatto: (a) Are beginning. (b) Not far enough advanced to state conclusions.

J. H. Landis: (a) To a slight degree. (b) About five per cent. are infected.

D. D. Chandler: (a) No.

William C. Woodward: (a) No.

L. M. Powers: (a) Not systematically.

C. E. Dutton: (a) No.

Walter S. Wheeler: (a) Slightly. (b) We have evidence that second and even third cases have developed where patient has been allowed to remain at home instead of being removed to the hospital.

G. H. Morgan: (a) Frequently. (b) Often an entire family is infected.

G. W. Goler: (a) Yes, tried to do so. (b) Have none because it was impossible to get sufficient data to make a comprehensive study of the disease.

Howard Lankester: (a) No.

J. M. Perkins: (a) No.

C. H. Wheeler: (a) No.

J. W. Keegan: (a) No.

B. Becker: (a) No. (b) Can give no numbers, but am convinced of the occurrence.

Frank W. Wright: (a) No. I know that formerly we had cases recurring in the same houses from year to year. Since tuberculosis germs are removed here promptly and premises are disinfected, this seldom happens.

M. Goltman: (a) To a certain extent. (b) If more scrupulous care is not observed other members of the family will become infected.

Clerk, Board of Health, Dayton, Ohio: (a) To some extent. (b) As soon as a case is discovered, means should be taken to have patient removed to some hospital where proper care and nursing can be given. All houses thoroughly fumigated. Education through our churches and other institutions.

C. C. Slemons: (a) Yes. (b) This varies with intelligence; in poorer classes the percentage of tuberculosis is very high. The great need in families is the protection of children. This to be done by removal of the tuberculous.

W. E. Hibbett: (a) Yes. (b) About 50% of persons constantly exposed become infected in some form.

F. A. Bates: (a) No.

John B. Anderson: (a) I have not.

Joseph D. Craig: (a) No; (b) but the number of cases of infection must be very large.

Livingston Farrand: I do not believe that it is possible to give accurate figures on this point.

John A. Kingsbury: I am making an intensive investigation extending over a three-year period. Will be completed in 1915.

James Alex. Miller: (a) No. (b) My opinion is that the percentage is very large.

James Jenkins, Jr.: (a) Somewhat. (b) In almost every family there is infection.

Frank E. Wing: (a) Only among children. (b) A recent analysis of over 7,000 examinations of children (mostly from tuberculous families) under 16 years of age, in our dispensaries, shows positive findings in 31.5 per cent. of the cases examined; also suspected tuberculosis in 5.2 per cent. more.

James Minnick: (a) No.

Theo. B. Sachs: (a) Yes, in a general way. (b) Chief sources of infection,—in homes.

Karl de Schweinitz: (a) No. (b) In isolated cases which we have investigated, there seems to be a large percentage of infection to other members of the family of one patient.

Lawrence F. Flick: (a) Yes. (b) See my article, "Contagiousness of Phthisis." Transaction of Medical Society, State of Pennsylvania, 1889, also Transactions Philadelphia County Medical Society, 1889; also "Home Infection of Tuberculosis," Maryland Medical Journal, February, 1904.

F. A. Craig: (a) No.

A. W. Jones, Jr.: (a) Partly. (b) Cannot yet state.

Richard C. Cabot: (a) No. (b) The hereditary factor is still the largest. Infection by contact is less important.

Seymour H. Stone: (a) No.

Henry I. Bowditch: (a) No.

V. Y. Bowditch: (a) No.

Edwin A. Locke: (a) No.

Edward O. Otis: (a) No. (b) From my clinical experience, I am convinced that a certain number of cases of infection occurs from patients remaining in their homes, but I have not had my clinical data examined so that I can give the percentage.

John B. Hawes, 2nd: No.

Cleaveland Floyd: (a) Yes. (b) In a paper in the Boston Medical and Surgical Journal, January 9th, 1913, I showed that 20 per cent. of children in tuberculous families contracted the disease.

John S. Fulton: (a) No.

William Charles White: (a) Yes. (b) The home is dangerous only from carelessness of patient. The home would be quite as safe as the hospital with proper supervision.

George H. Evans: (a) Yes. (b) Percentage of infection is high with the careless consumptive. With the patients attendant on our clinic where we have a splendid sociologic system with district nurses "always on the job," the percentage of infection is almost nil. Notwithstanding, I favor the proper housing in municipal hospitals of *all* advanced cases.

A. H. Giannini: (a) No.

Philip King Brown: (a) Not statistically. (b) Nearly every case I see among patients at Arequipa Sanatorium got her trouble in the family.

S. P. Withrow: (a) No.

Ernest D. Easton: (a) No. (b) From twenty-five to thirty per cent. of our cases have a tubercular history. Only about five per cent. have lived in houses where deaths occurred. All cases are persuaded to go to a hospital or sanatorium as soon as possible.

Frederick L. Hoffman: (a) No.

Gen. George M. Sternberg: Our Association has made no independent investigation on this point.

F. A. Sampson: (a) No. (b) Without definite investigation, should say the rate of infection under home conditions far exceeds the rate of death.

Montgomery E. Leary: (a) To a degree. (b) To our minds we believe many cases are traced to direct personal contact with the advanced patient. To this end we always search for incipient cases among the "exposed" persons, and we meet with considerable success in the discovery of these cases.

C. Easton: (b) A careful tracing of spread of infection in homes of tuberculous families in Minneapolis (poor) has shown that five-sixths of infection is the same whether nurses are on case or not.

Edward A. Pierce: (a) To a limited extent.

Robert G. Paterson: (a) No.

Rosa Lowe: (b) All our patients have been in their homes until a year ago. We find that the disease has spread through families and also has been contracted in places of business.

W. Irving Clark: (a) No. (b) But from observation of a large number of families I should think that one child at least was infected in each family when patient has open tuberculosis.

Ethel M. McCormick: (a) We have. (b) Out of one hundred cases studied, forty-five per cent. had tuberculosis from contact in homes.

John D. Strain: (a) Only to a small extent. (b) In many cases where people thought they had inherited the disease, we found the house the real source of the disease. There never had been any disinfection.

M. P. Ravenel: (a) No.

William J. Douglas: (a) No. (b) A tuberculous patient is a menace to the other occupants of the house, no matter how great care he may try to exercise in disposal of sputum, etc. It is physically impossible not to be so.

Lawrason Brown: (a) No.

Henry S. Goodall: (a) No.

A. H. Garvin: (a) Not directly.

Question No. 19—Is tuberculosis not the most important disease for a Health Department to control when regarded from the viewpoint of morbidity, mortality, and the economic loss to your city?

Ernest J. Lederle: Probably, lacking exact figures.

Joseph S. Neff: Yes, with pneumonia and infant mortality a close second.

Thomas B. Shea: Yes.

C. E. Ford and R. H. Bishop, Jr.: There is no question about it.

C. Hampson Jones: Yes.

J. D. Crawford: Yes.

Guy L. Kiefer: Yes, with possible exception of syphilis and gonorrhoea.

R. G. Brodrick: Yes.

Edith Shatto: Yes.

J. H. Landis: Yes, greater than typhoid and sewage disposal combined.

D. D. Chandler: Yes.

William C. Woodward: Yes.

L. M. Powers: Yes.

C. E. Dutton: Yes.

Walter S. Wheeler: Yes.

G. H. Morgan: Yes, indeed.

G. W. Goler: That it is important is unquestionable, not that it is more important than diphtheria, scarlet fever, measles, whooping cough, liver, heart and kidney diseases.

Howard Lankester: I do not believe that tuberculosis should be given its undue proportion of care to the neglect of all other diseases.

J. M. Perkins: Yes.

C. H. Wheeler: Yes, and the hardest.

B. Becker: Perhaps.

Frank W. Wright: Yes.

M. Goltman: Yes, most certainly.

E. C. Levy: No. Other diseases (notably typhoid) will give greater returns for same expenditure.

Clerk, Board of Health, Dayton, Ohio: Yes. Board of Health should have greater powers.

C. C. Slemons: Yes, by all means.

W. E. Hibbett: Yes.

F. A. Bates: Yes.

Edward A. Pierce: Tuberculosis or venereal disease.

John B. Anderson: I think so.

Joseph D. Craig: Yes.

Livingston Farrand: Yes.

Homer Folks: Yes.

John A. Kingsbury: Without doubt, I should say.

James Alex. Miller: No. Venereal diseases and pneumonia are in the same class. It is a mistake to claim too much. The facts are bad enough.

James Jenkins, Jr.: Yes.

Frank E. Wing: Yes.

James Minnick: Yes.

Theo. B. Sachs: Yes.

Karl de Schweinitz: Yes.

Lawrence F. Flick: Yes.

F. A. Craig: Yes.

A. W. Jones, Jr.: Yes.

Richard C. Cabot: Yes.

Seymour H. Stone: Yes.

Henry I. Bowditch: Yes.

V. Y. Bowditch: In my opinion, yes.

Edwin A. Locke: Of those infectious diseases now common, yes.

Edward O. Otis: Yes.

John B. Hawes, 2nd: Yes.

Cleaveland Floyd: Yes; because general living conditions will also be benefited.

John S. Fulton: No, but I can forgive those who think so; and I should expect those who were charged with that responsibility to proceed on that theory.

William Charles White: Not necessarily.

George H. Evans: Yes.

A. H. Giannini: Yes.

Philip King Brown: Yes; to me it is a more loathsome disease than leprosy. Nearly all our lepers in San Francisco die of phthisis and even at autopsy it is the tubercular lesions that are repulsive.

S. P. Withrow: Yes; but maybe not if others were not controlled.

Ernest D. Easton: Yes; in its broader aspect it includes many of the other diseases. For example—A better milk supply will not only reduce tuberculosis but infant mortality.

Frederick L. Hoffman: Yes.

Gen. George M. Sternberg: Under existing conditions, probably the most neglected of all contagious diseases.

F. A. Sampson: We are so convinced.

Montgomery E. Leary: It would seem so from facts and figures.

C. Easton: Generally.

Bradford H. Pierce: I should not say most important.

Robert G. Paterson: Absolutely.

Rosa Lowe: Yes.

W. Irving Clark: One of the most important.

William A. Marvel: Yes.

Ethel M. McCormick: By all means.

John D. Strain: It is; being a social disease, it is more difficult to handle.

R. J. Newton: Yes.

M. P. Ravenel: Yes.

William J. Douglas: Of the common diseases—yes.

Lawrason Brown: Yes.

Henry S. Goodall: Yes.

A. H. Garvin: Yes; and in the country.

Question No. 20—If you have not sufficient accommodations to care for a considerable percentage of your cases of tuberculosis, would you favor declaring the presence of so many sources of infection in your city an emergency justifying you, within the law, in quickly supplying hospital accommodations without the usual "red tape" and slow procedure?

Ernest J. Lederle: Yes.

C. B. Young: I do not think so. In my opinion nothing permanent is gained for the cause of preventive medicine by the attempt to force legislation by exceeding conservative accuracy in the statement of the necessities in any given case.

Joseph S. Neff: Yes.

Thomas B. Shea: We have sufficient beds to care for the cases described in your question.

C. E. Ford and R. H. Bishop, Jr.: Certainly, if you can get the law so interpreted.

C. Hampson Jones: Yes.

J. D. Crawford: Yes.

Guy L. Kiefer: Have nearly enough now.

R. G. Brodrick: Thoroughly in accord with the idea of providing hospital beds, temporary if need be, to care for an appreciable percentage of advanced cases. Tuberculosis should be looked on as a disease that is a menace to the public, chiefly from "advanced cases," particularly those of the ignorant or unteachable class.

F. A. Kraft: YES!!! "RED TAPE"—and politics have nothing to do with preventive health work! Slow procedures in the above cases can only be supported by blissful ignorance or inexcusable indifference.

Edith Shatto: Yes.

J. H. Landis: Yes.

D. D. Chandler: No.

W. C. Woodward: If usual procedure is delayed by "red tape" and is slow; and "within the law" there is a method for quickly supplying hospital accommodations, without resorting to the usual procedure; and if "you have not sufficient accommodations to care for a considerable percentage of your cases of tuberculosis"; and if, "within the law" it is necessary to declare a given condition an "emergency" before action can be had under the statute providing for a more prompt method of dealing with the situation; then the Health Officer might well declare the situation an "emergency" "within the law," in order to hasten the providing of the desired hospital accommodations.

L. M. Powers: Yes, within the law.

Walter S. Wheeler: If, in the opinion of the Health Commissioner, an emergency exists calling for the prompt treatment of advanced cases of tuberculosis, which are a menace to public health,—and if he has not the place to care for them, then he is justified in securing a suitable building temporarily for the care of

these patients. It would appear to me, so far as the legal phase is concerned, that the city would be compelled to pay all expense attached thereto. The Health Commissioner acts under a general police power and does not have to wait for a Council proceeding to give him permission to correct existing conditions or emergencies. It would seem to me that an emergency existed for the quarantining or segregation of advanced tuberculosis, that would either be a source of infection to others or a menace to the public health and the Commissioner should have the power to act immediately.

H. G. Morgan: Yes.

Chas. V. Chapin: No.

G. W. Goler: Yes; for all other diseases, too, gonorrhea and syphilis.

Howard Lankester: I would favor the Health Commissioner having the power to declare an "emergency" in any and every case of an epidemic or endemic of any and all contagious diseases, which would necessarily include tuberculosis.

J. M. Perkins: Yes.

C. H. Wheeler: No.

B. Becker: Yes.

Frank W. Wright: Yes.

M. Goltman: Yes.

Clerk, Board of Health, Dayton, Ohio: By all means.

J. Alex. Browne: I would answer "no" to the question as I consider that a careful consumptive is not a menace to those about him and that by supplying literature to the patients or those in charge of them and seeing that the provisions as required were lived up to that the danger of infection would be reduced to a minimum.

C. C. Slemons: Yes.

W. E. Hibbett: Yes.

F. A. Bates: As we have always been accommodated by the State, and the local Tuberculosis Camp, we have never been in a position where an emergency arose to justify us in supplying hospital accommodations contrary to the usual methods. Our Municipal Council is at present contemplating the erection of a Tuberculosis Hospital in this city.

Bradford H. Pierce: I should be inclined to believe that it would be unfair to take such an emergency measure as you suggest. I doubt if such a condition could be considered one of great and imminent peril. I believe, however, that provision should be made as soon as possible.

John B. Anderson: Yes.

Joseph D. Craig: No.

Livingston Farrand: Yes. The only qualification I should wish to make would be that the declaration that the situation constituted an "emergency" should be so worded that it would not tend to produce panic and yet should be sufficiently strong to emphasize the positively infectious and dangerous nature of the cases of tuberculosis

then existing and unprovided for. I believe we must wait until further facts prove the correlation between hospital segregation and a diminishing death rate from tuberculosis before making extreme statements. I believe this correlation exists, but it cannot be shown to the satisfaction of the skeptical person. I feel, nevertheless, that the term "emergency" may be justified at the present time, and I am certainly in favor of quickly and greatly increasing our hospital accommodations by any legal means.

Homer Folks: If by "red tape" you mean the holding of hearings, securing of consents, letting of contracts by bidding, then I would say that the presence of many sources of infection in the city is an emergency justifying prompt, expeditious action.

John A. Kingsbury: Most decidedly.

James Alex. Miller: Yes.

James Jenkins, Jr.: Our answer to question 20 is "yes." I think your suggestion for declaring the presence of so many sources of infection an emergency is a very valuable educational piece of work, but I have my doubts as to whether any city that I happen to know of, unless it was a very small one, would take such action. I think the time has come, when a good big jolt ought to be given the whole situation, and such a move as yours in Buffalo, would make people take up the tuberculosis problem more seriously.

Frank E. Wing: I would not, as I do not believe that the end justifies the means. If there are inexcusable delays because of "red tape" and "slow procedure" I would strike at the cause of the delay. Fifteen years from now it would make very little difference whether the opening of the tuberculosis hospital was delayed one or three months, or even a year; it would make a great deal of difference, however, if there has been no change in the mental attitude of the public which now permits this slow method of operating governmental machinery.

James Minnick: Yes.

Theo. B. Sachs: Yes.

Karl de Schweinitz: Yes. Inasmuch as the nature of tuberculosis frequently prevents accurate diagnosis I would, however, question the advisability of declaring the disease an epidemic.

Lawrence F. Flick: Yes. The urgency of a measure does not depend upon the acuteness of a disease, but upon the actual existence of a danger. If there is a real danger of implantation of new cases of tuberculosis by the existence of open, ulcerative, dying cases in a community which no one who understands the subject doubts, then that danger exists from the present moment in as great a degree as in six months from now, and for every moment during which that danger has not been eliminated from the community by a proper supply of beds in which to care for such patients, there has been neglect.

F. A. Craig: It would seem to me that this is a question depending entirely upon how you interpret the phrase "great and imminent peril to the public health," and "in the presence of impending pestilence." Personally, my own feelings in the matter would be that you

certainly would not be justified in taking any such steps. Although I would be willing to agree that the provisions your consider making might be of considerable value in preventing the disease. If we were able to make a quarantine absolute—by this I mean complete isolation of every patient suffering from tuberculosis, one might possibly be justified in taking the steps you suggest. Even at its best it is merely reaching one small number of those affected. In other words I feel that extreme measnres such as you suggest are only justified when the results would be extremely far-reaching so as to bring about complete removal of the causative factor.

A. W. Jones, Jr.: Yes.

Seymour H. Stone: I cannot answer in a word or two. I sincerely believe that hospital accommodations for advanced cases of tuberculosis should be supplied and supplied quickly, but it must be done after due deliberation. It is not clear as to what you mean by "red tape" and "slow procedure." If you mean by this, unnecessary delay, of course this seems unwarranted, but tuberculosis hospitals are costly, and the community wants to be absolutely sure that they have selected the right location and that the hospital is to be built along proper lines, otherwise within a few years the community may regret their haste.

Vincent Y. Bowditch: Where not too drastic action need be taken and the "red tape" which is so extremely annoying when haste is necessary in any question is done away with, I feel that I can say "yes" decidedly in answer to this question.

Edward O. Otis: Yes.

John B. Hawes, 2d: I would say that granted the conditions which you speak of in this question I should certainly consider that the presence of so many sources of infection in any city without sufficient accommodations to care for a considerable percentage of them would justify entirely supplying hospital accommodations without the usual "red tape" and "slow procedure."

Cleaveland Floyd: No. I would rather suggest the supervision of such cases in the homes by a staff of nurses and use the fact of insufficient accommodation to secure *adequate, permanent** hospital construction.

Georges H. Evans: I should answer this question in the affirmative with certain reservations. The condition you cite is present in every large city in the United States, and while the segregation of the late cases of tuberculosis is the most important thing in the campaign we may run great danger of adding to the extent of the phthisiophobia which exists everywhere if we make too great a cry of the necessity of hospital accommodation as an emergency measure. My own experience has been that we have not yet sufficiently educated

*Had already been done successfully in Buffalo by the Association. Plans for permanent hospital being prepared now.

those making up municipal governments as to the necessity of adequate housing for those cases. When we have more thoroughly done this we will have less trouble in getting the desired hospital beds. In the case of Buffalo the dissemination of seventy cases throughout the city by the closure of your Open Air Camp certainly justified your urging immediate hospital accommodation as an emergency measure.

A. H. Giannini: Yes. In matters of public health and police power, a charter should be accorded a liberal interpretation.

Philip King Brown: Yes.

S. P. Withrow: Tuberculosis conditions are not new and it would be an infraction of the spirit of the law, providing against emergencies, to use emergency methods in providing for the needs of hospital accommodations for advanced cases of tuberculosis. Such an action would hardly receive the support of public opinion.

Earnest D. Easton: The theory upon which we have worked in Newark is to create a sentiment in favor of hospitals or open air schools, or the enforcement of laws. Without this, any attempt would be futile. It seems to me that the Health Officer is justified in refraining from declaring tuberculosis an emergency measure, until he has the backing of the people. It may take a little longer, but I believe the results are better. To care for your 1,200 reported cases would involve a great expense, and the Health Officer must protect himself against any undue criticism. To take care of only advanced cases may be subject for criticism, although I think all of us social workers agree that it is more essential to take care of the advanced case than the incipient. It seems to me absolutely wrong to try to place this responsibility now upon the Health Officer when for several years you have not been able to get the city or the county to assume the responsibility, however urgent that may be.

Frederick L. Hoffman: Yes.

Gen. George M. Sternberg: Yes.

F. A. Sampson: Yes; up to 5% of estimated cases.

Montgomery E. Leary: Yes.

C. Easton: No.

Edward A. Pierce: Yes.

R. G. Paterson: No.

Rosa Lowe: Yes.

W. Irving Clark: Yes. We are building a tuberculosis hospital here now.

Wm. A. Marvel: Yes.

Ethel M. McCormick: I think so.

John D. Strain: I would.

R. J. Newton: Have an emergency clause in our County Hospital law.

M. P. Ravenal: I believe that this situation should be acted on as an emergency, and that a Department of Health would be fully justified under such circumstances in going to the furthest limit which still kept them within the law.

Lawrason Brown: Yes. It certainly seems to me a wise procedure, when a city has a large number of far advanced cases of tuberculosis and inadequate provisions for them, for the Health Office to take steps in some way to provide suitable accommodations in some hospital for such patients in order to remove the many sources of infection which they must necessarily prove to be.

Henry S. Goodall: Yes.

Wallace Hatch: Yes—most decidedly.

Question No. 21—Is it not plain that more efficient measure of a broader nature than now in practice generally, must be employed to obtain results which our present knowledge would lead us to believe probable?

Ernest J. Lederle: Yes.

Joseph S. Neff: Yes.

Thos. B. Shea: Better results could be obtained especially in the early reporting of these cases if some medical inspection could be made beginning probably with public corporations and then extending this examination to concerns so that it might be possible that every person engaged in any occupation might be examined at least once a year for tuberculosis. Hundreds of cases would be discovered and much better results would be obtained than at present.

C. E. Ford and R. H. Biship, Jr.: It certainly is the truth that more efficient measures will have to be adopted by every community before we begin to get any results in the handling of tuberculosis.

C. Hampson Jones: Yes.

J. D. Crawford: Yes.

Guy L. Kiefer: Yes, this is probably true.

R. G. Brodrick: Public should be made to realize the importance of furnishing adequate hospital accommodations for necessary cases, not only for proper treatment, but also for the protection of the public health.

Edith Shatto: Yes.

J. H. Landis: Yes.

D. D. Chandler: Yes.

Wm. C. Woodward: Yes.

L. M. Powers: Yes.

C. E. Dutton: Yes.

Walter S. Wheeler: Yes.

H. G. Morgan: Yes.

G. W. Goler: Yes, for all other diseases, too.

Howard Lankester: Yes.

J. M. Perkins: Yes.

B. Becker: Yes.

Frank D. Wright: Yes.

M. Goltman: Yes.

E. C. Levy: Yes.

Clerk, Board of Health, Dayton, Ohio: Yes, the community cannot do too much.

C. C. Slemons: Yes.

W. E. Hibbett: Yes.

F. A. Bates: Yes.

Bradford H. Pierce: Rigid measures cannot be put into effect too suddenly.

Jno. B. Anderson: Certainly.

Joseph D. Craig: Yes.

John A. Kingsbury: If a health officer, I should answer "yes," but let us have immediately some plan of compulsory removal and segregation.

James Alex. Miller: Of course.

James Jenkins, Jr.: Yes.

Frank E. Wing: Yes; better housing, better working conditions, better wages and a squarer deal for the "under-dog," also applied eugenics education.

Theo. B. Sachs: Co-ordination of all measures.

Karl de Schweinitz: Yes; if this means more hospital beds and segregation in certain cases.

Lawrence F. Flick: Without proper and adequate provision for advanced cases, results will continue to be unsatisfactory.

F. A. Craig: Yes.

Richard C. Cabot: Yes.

Seymour H. Stone: I presume by this question that you refer to preventive measures rather than hospital care. Hospital care alone, to my mind, will never stamp out the disease. We must have better housing, and working, and school conditions than we have today, otherwise we will be manufacturing cases about as fast as we can take care of them.

Henry I. Bowditch: Yes.

V. Y. Bowditch: Yes.

Edwin A. Locke: Probably.

Edward O. Otis: Yes.

John B. Hawes, 2nd: Hardly in Massachusetts.

Cleaveland Floyd: Yes.

John S. Fulton: The disease is declining in some cities, though more rapidly in cities which are definitely fighting the disease. I am unprepared to suggest any new measures. I cannot think of any new ones. The advances I predict will be in the matter of better practice along lines already defined.

Wm. Chas. White: Yes.

Geo. H. Evans: Yes.

A. H. Giannini: Yes.

Philip King Brown: Yes.

S. P. Withrow: Yes; we have been too easy.

Ernest D. Easton: Our Tuberculosis campaign must include general health measures.

Frederick L. Hoffman: Yes.

Gen. Geo. M. Sternberg: Yes, the subject must be considered from many points of view, economic, as well as sanitary—housing conditions, standards of living, wage condition, good food, etc.

F. A. Sampson: Yes, and the public must be prepared for more exacting demands, as to institutions.

Montgomery E. Leary: We are only touching the edge of the proposition.

C. Easton: It is.

Edw. A. Pierce: Yes.

R. G. Paterson: No.

Rosa Lowe: Yes.

W. Irving Clark: Yes; to my mind poverty is the greatest difficulty. This leads to poor living conditions and poor food.

Wm. A. Marvel: Yes.

Ethel M. McCormick: Yes. If a number of societies would agree to take these steps you suggest at the same time in their respective cities, it would make a great difference in the success of the respective ventures.

John D. Strain: They are.

R. J. Newton: Yes.

M. P. Ravenel: Yes.

Wm. J. Douglas: By all means.

Lawrason Brown: Yes.

Henry S. Goodall: Yes.

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